

Turkish Inflection and Copula Cliticization*

Yongkyoon No

1. Introduction

The traditional account of Turkish inflectional systems has several properties that make it unattractive. The quirks, I argue, could be eliminated rather neatly if we put to use the syntactic and the cliticization components of the grammar on top of ordinary morphology. In this paper, the new division of labor, which gives less work to inflection but more to syntax and cliticization, is argued for, and the analyses it yields are investigated.

I examine previous descriptions of a major part of the Turkish inflectional systems and propose a different analysis. I argue for the existence of the defective verb *İ* on the grounds (i) that whatever words that inflect for the same morphosyntactic features belong to one and the same (major) syntactic category, (ii) that /dl/ and *idi* stand in near-free variation,¹ (iii) that it is unlikely for there to exist two heavily overlapping paradigms, and (iv) that it does not seem methodologically sound to have a morpheme, the yes/no question marker /mI/, both as an independent word and as an affix. Section 2 sets the stage for the introduction of the copulative verb stems *İ/sİ* in section 3, where I put forward evidence for a cliticization treatment and spell out the realization rules for the alternating stems and the different affixal forms. Section 4 describes the distributional properties of the yes-no question marker *mI*, which will serve as part of the evidence for setting up the copulative verb. The last section, section 5, deals with the predictions this reanalysis of the Turkish inflection makes.

2. Person and number marking in VPs

A predicate in a Turkish sentence inflects for person and number. There are three inflectional systems, the selection among which depends on what grammatical category the predicate is in as well as on what kind of further inflection the predicate takes. (1) summarizes the three systems (Underhill 1976: 115).

(1) Inflectional suffixes

		Predicative	Possessive	
			true possessive	after /dl/
Singular	1	-(y)Im	-Im	-Im
	2	-sIn	-In	-In
	3	(-dİr)	-(s)İ	
Plural	1	-(y)İz	-İmİz	-k
	2	-sİnİz	-İnİz	-İnİz
	3	-(dİr)(İEr)	-(İEr)İ	-(İEr)

The predicative suffixes combine with predicate nominals, adjectives, and otherwise inflected forms of verbs. The relevant inflectional features on the verb are PROGRESSIVE, FUTURE, and AORIST, which are realized by /İyor/, /EcEk/, and /Er/, respectively.

The 'true possessive' affixes occur in the nouns denoting the possessed and in the verb in relative clauses. A similar paradigm is used for a particular inflected form of predicates, namely, the definite past /dl/. Sentences (2) through (4) illustrate the inflectional systems.

- (2) a. Ben akİllİm
I intelligent-1SG
'I am intelligent'
b. Sen Türk-sİn
you Turk-2SG
'You (sg.) are a Turk'

- c. Sen gel-iyor-sun
you come-PROG-2SG
'You (sg.) are coming'
- d. O gel-ecek-tir
he come-FUTURE
'He will come'
- e. Biz oku-ruz
we read-AORIST.1PL
'We read'
- (3) a. Ben de babam gör-dü-m
I also father-my see-PAST-1SG
'I saw my father, too'
- b. El-iniz-de ne tut-tu-nuz
hand-your-in what hold-PAST
'What did you hold in your hand?'
- c. Ben iste-diğ-imiz kitab-ı gör-düm
I want -1PL book-ACC see-PAST.1SG
'I saw the book that we wanted'
- (4) a. Bu kitab-ı beğen-dim
I book-DEFINITE.ACC like-PAST.1SG
'I liked this book'
- b. Halil kitap oku-du
book read-PAST
'Halil read a book'
- c. Biz kitap oku-yor-dık
we book read-PROG-PAST
'We were reading a book'
- d. Çocuk ağac-tan düş-ecek-ti
child tree-from fall-FUT-PAST
'The child was about to fall from the tree'
- e. Size yemek getir-ir-dim
you-at food bring-AORIST-PAST.1SG
'I would have brought you food'

As we see in the data above, the definite past (or the 'first-hand knowledge' past) affix /dI/ does not cooccur with the predicative ending in a simple sentence. The following template of VP-inflection directly encodes this restriction.

(5) Inflectional Template (First Approximation)

Stem	$\left(\begin{array}{c} \text{PROGRESSIVE} \\ \text{FUTURE} \\ \text{AORIST} \end{array} \right)$	$\left\{ \begin{array}{l} \text{Predicative Ending} \\ /dI/ \quad \text{Possessive Ending} \end{array} \right\}$
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One might wonder why FUTURE could go with /dI/, as in (4d) above. I assume this issue to be genuinely terminological. One could have a different name for the affix /EcEk/, such as would suggest it indicates an (imperfective) aspect. Its use, similar to that of a future tense marker, is derivative of the imperfective aspect in that case.

One outstanding quirk in the simple template in (5) is that the predicative ending stands in paradigmatic relation to two affixes: /dI/ and the possessive ending. When the predicative ending is not taken, both /dI/ and the possessive ending are required. The selection of /dI/ in the first subplot requires the possessive ending in the second. The selection of the possessive ending in the second subplot is triggered solely by the presence of /dI/ in the first.² This sort of nested dependency is better dispensed with inasmuch as possible, since this would lead either to an otherwise unnecessary assumption, namely that of hierarchical structure of inflectional affixes, or to an unsolvable question as to the slot in which the predicative ending is realized. The following amendment avoids both:

(6) Inflectional Template (amendment to (5))

	I	II	III
	PROGRESSIVE		
Stem	FUTURE	(di)	PERSON/NUMBER
	AORIST		

The only obligatory part of the inflection is the PERSON and NUMBER part, which in this amended template takes up the outermost slot. Which particular form a pair of values for the two morphological features should take depends then on whether the immediately preceding slot is filled: the possessive form is chosen if slot II is filled, otherwise, the predicative form is chosen.

Let us turn to the relation between the stem and the affixes. The most unusual feature about Turkish VP-inflection is that the syntactic category of the stem does not matter very much. Aside from its combinability with the affixes in the first slot, the category of the stem does not have any bearing on the inflectional affixes. This is shown by the sentences in (7).

- (7) a. Biz Türk-üz
 we Turks-1PL
 'We are Turks'
 b. Biz ev-de-yiz
 we house-at-1PL
 'We are at home'
 c. Orhan yorgun-du
 be tired-PAST
 'Orhan was tired'
 d. Mehmet gel-di
 come PAST
 'Mehmet came'

Nouns, postpositions, and adjectives as well as verbs inflect for PERSON and NUMBER. All of them inflect also for PAST. The very fact that lexical items from all grammatical categories but adverb inflect is astonishing. What is worse, the morphosyntactic features for which words of these categories inflect are the same.

Given these observations, one is obliged to look into the possibility of there being a lexical item after nonverbal categories. If there does exist a lexical item there, the problem of having the same inflection with heterogeneous categories will be solved. The category of the lexical item can best be a verb, since a verb inflects for person and number and a verb has wide range of subcategorizations. Turning to the identification problem, I can think of two possible reasons for the failure to identify such a verb: that the verb stem might be a null-string and that a further factorization on what is assumed to be an inflectional affix has not been done.

In all actuality, I think these possibilities deserve attention so that we eliminate the problems with the traditional accounts of Turkish morphology. Let me add that I cannot come up with more reasons for the misidentification.

Since I know of no examples of lexical stems which are consistently null but which have non-null inflected forms, I reject the first possibility out of hand. This decision is in keeping with restrictive views of grammar that eliminate as many empty items as possible. It is the second possibility that I pursue in the next section. The (predicative) inflectional suffixes are factorized into two parts: a verb stem and a genuine inflectional suffix.

3. The copulative verb: the inflected verb as a clitic

3.1. The copula

One recurrent property of a copulative verb across world languages is that its inflectional paradigm is packed with suppletive items, some of which are simply zeroes. The present form of the copula in Russian, for instance, has no phonological content whatsoever; the copula in Korean systematically lacks substance after a word ending in a vowel. In light of this, one has to look into some 'marked' constructions after the defective verb. One such construction is obviously a copulative sentence in past tense.

- (8) a. Yorgun i-dik
tired be-PAST
'We were tired'
b. Müdür i-diniz
director be-PAST
'You were the director'
c. Ev-de i-di
home at be-PAST
'He was at home'

The single-segment morpheme /i/ is obtained from the data right away.

3.2. Phonology is not responsible

The sentences in (8) are synonymous with sentences [yorgunduk], [müdürdünüz], and [evdeydi], respectively. It should be asked then whether it is a phonological process, morphonological or automatic, that relates [idik], etc. to [duk], etc.. If Turkish Vowel Harmony is taken to be automatic, then one would have to say that the underlying representation, say, for the FIRST PERSON PLURAL form of the copula is /idik/ and that a word-initial vowel deletes optionally.³ This optional-deletion approach is not tenable, granting that the remaining vowel can be made to harmonize with the vowel of the preceding word. The reason is simple: there are thousands of Turkish words beginning in a vowel that does not delete. The putative deletion cannot be automatic, since it has to be sensitive to the value for the putative rule feature [Initial Vowel Deletion]. It has to be morphonological, but then it must not be able to refer to another word.

The deletion ought to be sensitive to the last sound of the preceding word. Where the preceding word ends in a vowel, the deletion of the initial vowel in the following word should not apply. Rather, the high vowel should turn later to a glide: [okuldaydık] 'we were at school (dE 'at') and [okulda idik] are acceptable while [okuldadık] is not. Under a hypothesis of strict ordering of the CLITICIZATION-MORPHONOLOGY-AUTPHONOLOGY components such as the one adopted by Zwicky and Pullum (1986) and Zwicky (1987), this would entail the vowel deletion process can neither be morphonological nor autphonological.

The status of Vowel Harmony does not affect the situation. If Turkish Vowel Harmony were viewed as a non-automatic process, /duk/, /dik/, and /dük/ could be provided appropriately by a set of morphonological operations associated with the realization rules. The realization rules should refer to something else besides the phonological properties of the stem and the morphological features to be realized: they have to refer to another word. Otherwise, /duk/, etc. cannot be realized as a variant of /idik/. Since not morphonological rules, but only autphonological rules can refer to phonological properties of adjacent words, there is no way to appropriately realize /duk/, /dik/, and /dük/ in the REALIZATION component as alternative pronunciations of /idik/.

Since the vowel deletion phenomenon seen in the alternative pronunciations of the past form of the copula cannot be attributed to morphonology or autphonology, the only other

options that remain are SHAPE conditions and cliticization. The former is out early on. The choice between /idik/ and, for instance, /duk/ is not contingent on any phonological properties of the preceding word. Cliticization is now the only plausible approach that has not been considered yet and, in fact, I do not see any reason that it cannot yield the right analysis of the above alternation.

3.3. The word-forms that are enclitic

Notable features of the Turkish copula enclitics include (a) their being inflected word-forms, (b) an asymmetry between the past and nonpast forms with regard to the presence/absence of their related independent word and (c) the nonexistence of nonpast third person forms. The nonpast forms of the copula are /Im/ 'FIRST PERSON SINGULAR', /sIn/ 'SECOND PERSON SINGULAR', /Iz/ 'FIRST PERSON PLURAL', and /sInIz/ 'SECOND PERSON PLURAL'. All of these are clitics: there are no related phonologically independent words.

The past forms of the copula, on the other hand, come in two varieties: the independent word-forms and their clitic counterparts. (9) summarizes this.

(9)		Independent words	Corresponding enclitics
Sing.	1	idim	dIm, ydIm
	2	idin	dIn, ydIn
Pl.	1	idik	dIk, ydIk
	2	idiniz	dInIz, ydInIz
3 Person		idi	dI, ydI

These past forms of the copula are optional 'bound words' much like the English auxiliaries have /-v/, has, is /-z/, had, would /-d/, and are /-r/.⁶ The nonpast forms are obligatorily bound words.

There are more enclitics in the language. The nominal conjunction ile and its corresponding enclitic /-(y)IE/ exhibit the same phonological pattern as the copula. Sentences in (10) and (11) exemplify this point.

- (10) a. Mehmet ile Orhan-i gör-düm
and see-PAST
'I saw Mehmet and Orhan'
b. Mehmet-le Orhan-i gör-düm
'I saw Mehmet and Orhan'
- (11) a. Bir adam ile bir kadın lokanta-ya gir-di
one man and one woman restaurant-at enter-PAST
'A man and a woman entered the restaurant'
b. Bir adam-la bir kadın lokanta-ya gir-di
'A man and a woman entered the restaurant'

A difference is found with regard to the degree of heterogeneity of the host in terms of its category membership: the copula attaches to a word of any category except for an adverb; the conjunction attaches to a noun or a pronoun. While the conjunction has both strong and weak forms, still another enclitic, ml, has only a weak form. We will return to this yes/no question word in section 4.

3.4. Stem and affix alternation

The analysis of I as the stem of the copulative verb urges one to have this verb between the nonverbal phrases and the PERSON/NUMBER affix in (6). Assuming this is the right analysis, we can now turn to a very suspicious feature the inflectional paradigms in (1) exhibit.

The so-called 'predicative' affixes and the particular set of affixes which are selected if the definite past affix is present are highly similar, modulo the occurrence of the as yet unidentifiable /dlr/. There are only two points of difference, however. One is seen in the first person plural forms: /(y)lz/ versus /k/. The other difference, the one in second person singular and plural forms, is of greater importance in this context. The presence of the initial consonant /s/ distinguishes the predicative forms from the forms required by /dlr/. If what has so far been assumed to be a single affix, namely the second person singular or plural predicative inflectional affix, could be analyzed as two morphemes, X followed by the inflectional affix for second person singular or plural, the suspicious feature in the inflectional paradigm would vanish. This is precisely what the preceding paragraph cries out for.

If one takes l to be the primary stem of the copulative verb, and sl to be the secondary stem of that verb, and assumes that this verb is subcategorized for various phrases (NP, AP, and PP, in particular), not many problems remain. The selection between the two stems and the difference in the first person plural affixes are the two major points of concern.

The alternation among stems is not rare. Exactly the same kind of alternation is evidenced by Latin su, es, esse, and fu. Let me write up realization rules along with their concomitant operations, along the lines of Zwicky (1988). The stem realization rules say 'Realize [-N, +V, SUBCAT: 100, PAST: +] by Operation 220,' 'Realize [-N, +V, SUBCAT: 100, PERSON: 1] by Operation 220', and 'Realize [-N, +V, SUBCAT: 100, PAST: -, PERSON: 2] by Operation 221'; the affix realization rules say 'Realize [PERSON: 2, NUMBER: SINGULAR] by Operation 214' and 'Realize [PERSON: 2, NUMBER: PL] by Operation 215'. The realization rules would work out everything, insofar as the operations are correct and there is an additional rule to handle the alternation between the first person plural affixes. (12) and (13) guarantee this.

- (12) Rule 37: Realize [PERSON: 1, NUMBER: PLURAL] by operation 212.
38: Realize [PAST: +, PERSON: 1, NUMBER: PLURAL] by operation 213.

- (13) Operation 212: Suffix /lz/
213: Suffix /k/
214: Suffix /ln/
215: Suffix /lniz/
220: l
221: sl

It seems appropriate at this point to update the inflectional template presented in section 2. As a matter of fact, there is no need for change in the amended template, granting that there is a change in the understanding of the last slot. I repeat (6) here and rename it.

- (14) The Template of Verb Inflection (Revised)

	I	II	III
Stem	PROGRESSIVE FUTURE AORIST	(dl)	PERSON/NUMBER

The analysis of l as a verb stem as opposed to an inflectional ending or part of an ending should have several consequences. First, it must have its own inflected forms. Second, it should have distributional properties distinct from clear cases of bound morphemes. Let us look into the rest of its inflectional paradigm before we go on to the second question in the next section.

The past form of the copula is idi, just as one would expect. Its progressive form is missing, presumably due to semantic conflicts. Its future and aorist forms are borrowings from a semantically related verb ol 'become': olacak is the future form, olur the aorist.

Consider the following:

- (15) a. Bu resim güzel ol-acak
this picture beautiful be-FUTURE
'This picture will be beautiful'
b. Yarın ev-de ol-acak-ım
tomorrow house-at be-FUTURE-1SG
'Tomorrow I will be at home'
c. Antalya'nın portakal-lar-ı çok büyük ol-ur
orange-PL very large be-ARIST
'Oranges of Antalya are very large'

The negative forms of copula are also suppletive. The unmarked (nontensed) form is değil. This same stem combines with /dl/. The tensed ones are borrowings, again from ol: olmayacak 'will not be' and olmaz 'often not'. I will not give examples.

The extraordinary complexity of the facts surrounding Turkish predicate inflection is shown to be exhaustively, and adequately, describable without an appeal to any unrestrictive mechanisms. The description developed above in effect proves the necessity of a strict distinction between the cliticization and morphonological components on the one hand, and between cliticization and syntax on the other. Furthermore, inasmuch as the rules in (12) and the operations in (13) offer the right kind of economical description, they provide evidence that the separation of operations from a realization rule is a route well-taken. Section 4 deals with a major problem in Turkish grammar, which could not be solved unless the syntactic component and cliticization components were put to use.

4. Asymmetry in yes-no questions

Yes-no questions in Turkish are formed by attaching the morpheme mi at the end of a phrase or somewhere in the middle of the inflectional affix slots. Its distribution gives the verbal morphology of the language a very exotic appearance.

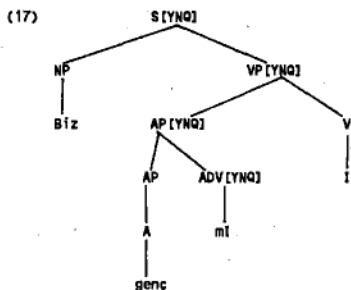
- (16) a. Biz genç mi-yiz
we young YNQ-be
'Are we young?'
b. Biz genç değil mi-yi-dik
we young not YNQ-be-PAST
'Were we not young?'
c. Sen çalış-ıyor mu-sun
you work-PROG YNQ-be
'Are you working?'
d. gel-di mi
come-PAST YNQ
'Did he come?'
e. meyve aldı-k mi
fruit buy-PAST YNQ
'Did we buy fruit?'
f. şimdi mi gel-di-niz
now YNQ come-PAST-2PL
'Is it just now that you came?'

This promiscuous behavior of mi is a major stumbling block to a simplistic approach. Hankamer (1986:45) is exceptional among the writers on Turkish morphology in that he explicitly states the problem:

Somewhat more dubious is the indirect recursion V4-V5-Q1-Q2-Q3-V4, which is there to capture some of the more frightening complexities in the verbal and predicate inflection, and is almost certainly not right. I don't want to talk about it.

What he aims at is a construction of a finite-state parser which proceeds only in one direction, left to right. His V4 is the state recognizing a stem of a verb. He treats derivational suffixes totally on a par with inflectional ones. The next state, V5, of his parser recognizes 'tense' morphemes, which are the slot I and II affixes in combination in our (14). One of the options open to this parser is to make a null transition to Q1, which in effect has made sure that there is the right sort of string to which mi attaches. After checking the presence of this morpheme and then of another morpheme y, the parser makes another null transition to V4, leading to a recursion. I give his diagram in Figure 1 on the next page.

Having mi as an independent word and mi as an inflectional affix hardly seems right when these putative homonyms have the same grammatical functions. This difficulty does not remain once we take the stance motivated in the previous section: if I is separated as a verb stem, the generalization is that mi never intervenes between the verb stem and its inflectional affixes. The only place in which mi can occur is an absolute phrase-final position. The syntactic structure of (16a) for instance is seen to be like (17).



Ordinary agreement mechanisms work out the inflection on the verb I via the realization rules given in section 2. What is noteworthy in this structure is the fact that the feature [YNQ] is a foot feature. It can be instantiated freely at any node under S, for instance under the subject NP or under an adverbial daughter of S or VP (as in (16f)), as long as no semantic conflict arises.

If the generalization about the distribution of mi is correct and if /dInIz/, etc. are really inflectional endings in contradistinction to their mates /sInIz/, etc., then there should be an acceptability contrast between the two groups when they combine with a preceding mi. That, in fact, is the case.

- (18) a. Gel-iyor mu-sun
 come-PROG YNQ-be.NONPAST
 'Are you coming?'
 b. *Gel-iyor mu-dun
 come-PROG YNQ-be.PAST
 'Were you coming?'
 c. Gel-iyor mu-ydun
 come-PROG YNQ-be.PAST
 'Were you coming?'
 d. Gel-iyor-dun
 come-PROG-be.PAST
 'You were coming'

What is relevant is the unacceptability of (18b) as opposed to (18a). Not only the bond between the stem and the inflectional affixes, but also the one between any pair of adjacent affixes is strong enough to reject a non-affix. The first affix /Iyor/ and the second affix /dI/ in

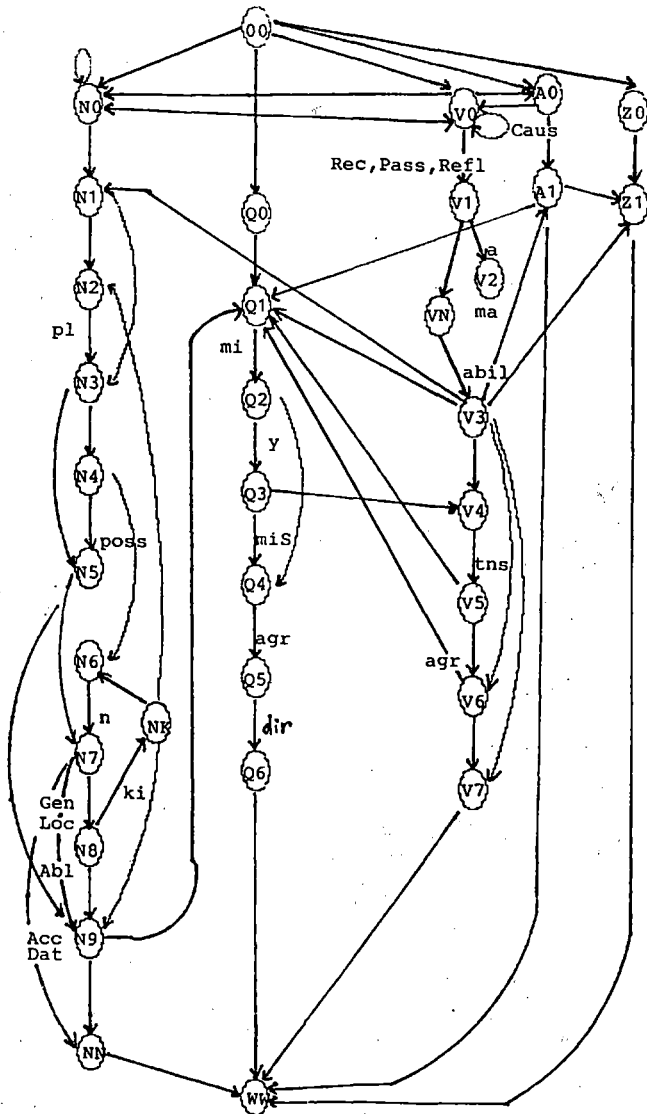


Figure 1. Hankamer's (1986) Parser

(18b) cannot be separated. The only way of saying what one might have hoped to say with (18b) is (18c). And this is not the result of an obligatory phonological process applying to (18b) as its input. As far as I can tell, there is no epenthesis or diphthongization triggered by a /d/ which is not also triggered by an /s/. The palatal glide after the yes/no question morpheme in (18c), then, can only be the copulative verb I. As a high vowel, it palatalizes after another high vowel. The remaining problem is the subcategorization frame of this verb.

We noted in section 3 that I is subcategorized either for an NP, for a PP, or for an AP. We clearly need to add a VP to this short list. This is an appropriate place to recall from section 2 that the 'predicative' ending does not combine with the stem of a verb unless the sentence is in the imperative mood. The declarative sentence type does not differ from the interrogative in terms of verb inflection. Then the major distinction should be drawn between the imperative and the nonimperative types. With this, one can proceed to say that I is subcategorized for a VP and governs certain forms that are distinct from the base form. I will call this class of forms VFORM 2. Since I am not concerned with all the details of Turkish grammar, I will say only that the affixes in the first slot in the template (14), /Iyor/, /EcEk/, and /Er/, belong to this class.² To recapitulate, the following ID rules introduce the complements of I.

- (19) VP ---> NP, V[100]
 VP ---> PP, V[100]
 VP ---> AP, V[100]
 VP ---> VP[VFORM 2], V[100]

The verb değil and the verb ol have the same range of subcategorizations as I. What distinguishes these two from I is the fact that they do have their own VFORM 2 forms: the invariant değil and olacak and olır. Thus, not only can they take the same complements as I, they also head the complement VP of I. They also serve as the base to which the PAST ending /dI/ attaches.

5. Predictions

The analysis developed in the preceding two sections naturally predicts several cooccurrence restrictions, which would otherwise remain genuinely arbitrary. The predictions include the following:

- P1. The verb I/sI never combines with the base form of a verb.
 P2. The PAST affix does not occur right after a nonverb (noun, postposition, or adjective).
 P3. A phrase-final adverb may come before I/sI, as a daughter-in-law.
 P4. A phrase-final adverb may not come before the PAST affix.
 P5. A phrase-level conjunction may give rise to strings such as
 VP[VFORM 2] Conj VP[VFORM 2] I/sI PERSON/NUMBER,
 AP Conj AP I/sI PERSON/NUMBER,
 PP Conj PP I/sI PERSON/NUMBER, or
 NP Conj NP I/sI PERSON/NUMBER.
 P6. Gapping may give rise to strings such as
 NP VP[VFORM 2] Conj NP VP[VFORM 2] I/sI PERSON/NUMBER,
 NP AP Conj NP AP I/sI PERSON/NUMBER,
 NP PP Conj NP PP I/sI PERSON/NUMBER, or
 NP NP Conj NP NP I/sI PERSON/NUMBER.

Let us see some of the more prominent consequences of the predictions. To see that P1 is really the case, one might try to figure out what the would-be combination 'V_{stem} + I/sI' could possibly mean. Due to the semantic neutrality of the copulative verb, the meaning and the associated use of the string must be much the same as what one would expect on a verb without any inflection in other languages. Present tense in declaratives and the imperative mood suggest themselves as candidate features of such a putative string. Since the former is indicated by the aorist affix /Er/, a VFORM 2 affix, the only remaining question is whether the imperative forms really lack I/sI. Here comes an absolute yes, again.

It will be seen that the imperative of the second singular is identical with the stem; cf. the English imperative without 'to.' Of the second-person plural forms, the longer is the more polite. Care should be taken not to confuse the third-person suffix of this mood with the second-person singular of the Type I [same as our 'predicative', YN] endings; if -sin is added to a stem, it makes the third-singular imperative: gel-sin 'let him come'; if added to a base, it makes the second-singular present: gel-eccek-sin 'you-are about-to-come'; gel-mis-sin 'you-are having-come.'

(Lewis 1967: 137)

P2 accounts for the exceptionless existence of the independent-word variant /IdI/ corresponding to every occurrence of /dI/ cliticized to a noun, a postposition, or an adjective. P3 and P4 provided major evidence for the whole analysis: mi is no longer an affix, but an adverb. Other phrase-final adverbs, the generic-assertion marker dlr and dE 'also', for instance, would not occur before the past affix dl, but would occur phrase-finally before the copula I/sl. However, two facts about Turkish detract somewhat from the value of this prediction. First, there is a systematic alternation between the independent IdI and the enclitic /dI/. Due to this alternation, /dlrdI/ may arise if the /dI/ is the enclitic counterpart of IdI. Second, dlr occurs mainly with a third person subject. Since, as the realization rules in section 3.4 insure, the third person present form of the copulative verb is a null string, this leads to a case where we cannot tell whether the adverb dlr precedes or follows the null string.

The last two predictions turn out to be very compelling as evidence for the lexical status of I/sl, due to their more syntactic nature. The following grammatical sentences serve to bear the predictions out.

- (20) a. Biz git-meli (ve) gid-eriz.
'We have to go and will go'
b. Siz ya ev-de ya okul-da i-di-niz.
'You were either at home or at school'
c. Sen genç ve malum-sun.
'You are young and well-known'
d. Biz ya türk ya arab-ız.
'We are either a Turk or an Arab'
- (21) a. Biz git-meli siz gel-meli-siniz.
'We have to go; you have to come'
b. Siz ev-de biz okul-da-ydık.
'You were at home; we were at school'
c. Sen genç Orhan ihtiyar-dır.
'You are young; Orhan is old'
d. Biz türk Mehmet arab.
'We are Turks; Mehmet is an Arab'

Note the absence of facts related to VP-Ellipsis in the above list of predictions, which, if included, would certainly serve to corroborate my claims. The syntactic process found in the English sentences in (22) does not seem to have such an analog in Turkish as would prove the word-hood of I/sl.

- (22) a. Although Sue wanted to, the rest of them decided among themselves that they shouldn't attend the game.
b. My goose is cooked, but yours isn't.
c. Every girl who could, saw the film.
d. Kim's father urged her to play every game her boyfriend did.

The strings in (24) cannot be used to convey the meanings expressed by sentences in (23), even when the context of conversation helps determine the meaning.

- (23) a. Ben-de yorgun-um.
 I-also tired-be
 'I also am tired'
 b. Ben-de Türk-üm.
 I-also Turk-be
 'I also am a Turk'
 c. Ben-de git-meli-yim.
 I-also go-OBLIG-be
 'I also have to go'
- (24) a. *Ben-de yim.
 b. *Ben-de-m.

Unlike the complement of I, that of the negative copula degil can be suppressed. B's response in the following piece of conversation is linguistically perfect.

- (25) A: Yorgun-mu-sunuz? 'Are you tired?'
 B: Degil-im. 'I am not.'

The suppression of its complement could be due to XP Ellipsis or to its status as a proform of a VP. Since there is no syntactic process in Turkish that is as prevalent as VP Ellipsis in a language like English, we take degil to be a proform of a VP.

The absence of VP Ellipsis, if anything, is presumably to be attributed to the closer connection between the Turkish morphemes corresponding to English auxiliary verbs and their 'complements' than in English⁶. Auxiliary verbs in English are independent words; the Turkish means of expressing the same meanings are either derivation, inflection, or cliticization. Auxiliary verbs being responsible for VP Ellipsis, the absence of independent-word auxiliaries in Turkish is the very reason for there being no VP Ellipsis in the language.

6. Conclusion

What are known as 'predicative inflectional suffixes' have been analyzed as the copula followed by an inflectional suffix. Their affixal characteristics are shown to be due to the enclitic status of the copula. Adopting Zwicky's framework of syntax-phonology interface, the two heavily overlapping paradigms of predicate inflection are shown to be reducible to a single paradigm of verb inflection. Hankamer's (1986) problem of 'dubious recursion' arising from the traditional analysis is successfully overcome, since the yes/no question morpheme, mi, is taken to be an adverb, rather than an inflectional suffix. The analysis is supported by facts about phrasal conjunction and gapping.

Notes

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1. Lexical items and word-forms are underlined, while affixes are given between slashes. No such distinction is made when they appear in example sentences.

2. This is so at least in the highest sentences. In an embedded clause, however, the predicative ending cannot occur. Neither can dl. The only ending that can, and actually should, occur in the outermost slot of an embedded VP is a possessive ending, namely one of those in the second column of (1).

3. There cannot be any conditioning factors, phonological or categorial. For the classification of clitics into 'bound words' and 'phrasal affixes', see Nevis (1985), cited and commented on by Zwicky (1986).

4. mEli 'OBLIGATORY' is another sure candidate for VFORM 2, as is suggested by Lees (1972:69). Lees views a VP in VFORM 2 as a noun-phrase: 'The participialized verb-phrase is itself a noun phrase, a predicate of the copula.' However, since the 'participialized' VP does not behave as an ordinary NP, his analysis would have to face serious overgeneration problems. As of writing, I am not sure of the status of other affixes like EmE, Ebil, and mEmEli. I am inclined to take mE 'NEGATION' to be a derivational suffix, hence not a VFORM 2 affix.

5. I am assuming that VP-Ellipsis is confined to a proper subset of complement-taking verbs in every language. However, while English conforms to this assumption, I do not know of VP Ellipsis phenomena of other languages. Nothing in this analysis hinges on this particular assumption.

6. I am assuming that VP-Ellipsis is confined to a proper subset of complement-taking verbs in every language. However, while English conforms to this assumption, I do not know of VP-Ellipsis phenomena of other languages. Nothing in this analysis hinges on this particular assumption.

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